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NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

**UKRAINIAN MILITARY EDUCATION: HIGH TIME FOR
REFORM**

by

Kostiantyn Narkunas

June 2001

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Mark J. Eitelberg
Benjamin J. Roberts

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20011120 075

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE June 2001	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE : Ukrainian Military Education: High Time for Reform			5. FUNDING NUMBERS	
6. AUTHOR(S) Kostiantyn, Narkunas				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) This research demonstrates the need for change in the Ukrainian military educational system. Shaped after the Soviet style, the current military educational system is still highly specialized, with a strong emphasis on training. The traditional approach to an officer's preparation is quickly rendered obsolete by the rate of progress. Moreover, rapid and constant changes in the international and domestic environment, the emergence of new missions, technical advances, and the information revolution require a creative and adaptable educational system as well as life-long learning. Ukrainian officers today need a qualitatively new level of knowledge of international law and organizations, ethnicity and culture, economics and human rights, civil-military relations, and information technology. The military educational system bears a heavy responsibility for providing adequate knowledge to the officer corps, and it should become an agent for change.				
14. SUBJECT TERMS Military Education, Curricula, Leadership, Information Technology, Communication Skill			15. NUMBER OF PAGES	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

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UKRAINIAN MILITARY EDUCATION: HIGH TIME FOR REFORM

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Colonel, Ukrainian Army
B.S., Sumy Artillery Institute, 1986

Submitted in partial fulfillment of the
requirements for the degree of

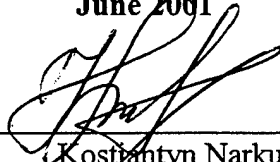
**MASTER OF SCIENCE IN INTERNATIONAL RESOURCE PLANNING AND
MANAGEMENT**

from the

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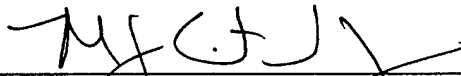
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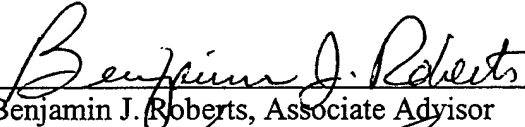


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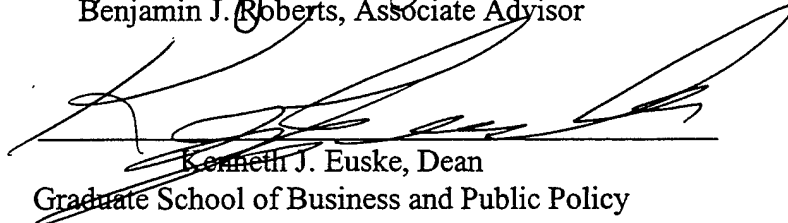
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ABSTRACT

This research demonstrates the need for change in the Ukrainian military educational system. Shaped after the Soviet style, the current military educational system is still highly specialized, with a strong emphasis on training. The traditional approach to an officer's preparation is quickly rendered obsolete by the rate of progress. Moreover, rapid and constant changes in the international and domestic environment, the emergence of new missions, technical advances, and the information revolution require a creative and adaptable educational system as well as life-long learning. Ukrainian officers today need a qualitatively new level of knowledge of international law and organizations, ethnicity and culture, economics and human rights, civil-military relations, and information technology. The military educational system bears a heavy responsibility for providing adequate knowledge to the officer corps, and it should become an agent for change.

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I. INTRODUCTION

A. PURPOSE

This thesis focuses mainly on perceived weaknesses in the Ukrainian military educational system and their possible consequences. There is an urgent need for action to improve the current state of military education, since it plays a crucial role in the preparation of the Armed Forces elite-the officer corps. Graduates from military universities will soon occupy leadership positions and shape the strategy and organizational climate of the Armed Forces for years to come. Therefore, there is a strong connection between the quality of education and important issues of the future, such as research and development, organizational culture, leadership, and societal respect for the Armed Forces.

The primary purpose of the study is to examine certain gaps in the educational system and to suggest ways in which the system can be improved. The thesis does not attempt to address all of the problems in military education. The same is true for recommendations, which are given at a very rudimentary level, and should be viewed more as a guidance for change. It is hoped that this research will further encourage debate on the essential issues of military education and provide Ukrainian military leaders with a blueprint for improvement.

B. ORGANIZATION OF THE STUDY

The thesis is organized into five chapters.

Chapter I presents an introduction and describes the methodology used in the thesis.

Chapter II provides a general description of the Ukrainian system of military education and examines certain environmental factors that seem to have an especially significant impact on officer education.

Chapter III analyzes some fundamental shortcomings in Ukrainian military education such as reactive thinking, outdated educational methods, and the lack of essential courses in the educational curriculum. It also offers some suggestions for further examining the issues discussed.

Chapter IV continues the discussion started in Chapter III. It focuses on areas of growing importance in the military curricula, particularly English and Information Technology courses.

Chapter V presents conclusions and recommendations. It should be emphasized here that the study does not offer a comprehensive treatment of all the existing problems in the Ukrainian military education system. Therefore, the thesis recognizes the need for further research in this field. Constant attention and timely adjustments in military education are essential for an effective response to the many changes that are constantly occurring in society and internationally.

Appendix A contains a sample of current Ukrainian military educational curricula in Artillery.

Appendix B provides unified curricula suggested for the near-term future.

Appendices C, D, E, F, and G offer a preliminary bibliography for different courses. The list of resources, presented in the Appendices, provides only a sample of starting points for suggested new courses or the comprehensive revision of old ones.

C. SCOPE AND METHODOLOGY

The thesis looks closely at the environment in which the Ukrainian system of military education operates. Indeed, the environment is currently creating a demand for profound changes in the educational system.

The research then focuses on perceived shortcomings in the current Ukrainian military education system and attempts to determine the necessary steps to enhance the system's effectiveness.

The methodology used in this study consists of the following steps:

- Conduct a literature search of books, articles and other library and network resources on professional education, with particular emphasis on recent tendencies, research, and achievements in this field;
- Identify existing problems in the military education system and develop effective recommendations; and
- Examine achievements of the U.S. Naval Postgraduate School in the area of study programs to find a possible approach and applications for the Ukrainian system.

D. LIMITATIONS

The thesis addresses a limited set of issues in Ukrainian military education and, therefore, recognizes the need for further study.

Discrepancies might be found between data presented in the thesis and other sources of information. Different sources, such as NATO, the Ukrainian Ministry of Defense, the Ukrainian Center for Economic and Political Studies, independent military analysts, and non-government experts often provide different data. Further, there is still a lack of information on changes in the Ukrainian military education. The so-called White Book, "Ukraine's Defense Policy," an important source of information on the Ukrainian military, has not published in the past several years.

E. EXPECTED BENEFITS OF THE THESIS

The Ukrainian Armed Forces are undergoing reform in a wide range of areas with the goal of developing

the modern system, with Euro-Atlantic model characteristics, optional by strength, multifunctional, mobile, highly professional, well equipped, reliably supported, capable of accomplishing assigned missions in any environment (The State Programme of the Ukrainian Armed Forces Reform and Development until 2005, p. 11).

Accomplishing these tasks will require a well-educated officer corps. Unfortunately, military educational reform is far behind today's demands. It is my fondest hope that this research will contribute to improved recognition that the Ukrainian Armed Forces should abandon outdated educational methods to meet the demands of the present as well as the future.

II. MILITARY EDUCATION, THE ENVIRONMENT, AND A NEED FOR CHANGE

The Ukrainian system of military education is the most important source of officers for the Armed Forces. Officers account for a relatively small share (28 percent)¹ of the Ukrainian Armed Forces. Nevertheless, it is clear that their role in leading the Armed Forces is critical. Graduates from numerous military institutes and universities receive their first officer rank of "lieutenant" and are appointed to different command positions. Furthermore, graduation from the National Academy is a prerequisite for an appointment to commanding positions above the battalion level. The quality of military education is a crucial factor for successful development of the Armed Forces today and for the future.

Tremendous changes in the world, including new political orders, shifting economic conditions, technological advancements, and other developments factors impose new requirements on military education. Certain environmental factors, discussed below, are especially important with respect to officer education.

1. Decreased Resources and Downsizing

The prolonged transitional period from totalitarian regime to democracy has imposed severe financial limitations on the defense budget. The past strategy of prioritizing the military over economic reconstruction seems in serious disarray at this time, as military affairs become less important to the Ukrainian people. For the first time

¹ See Oleksandr Razumtsev, *Social Aspects of Armed Forces Reform: the Spirit of Ukrainian Officers*, 2000, p.40.

since the end of the Soviet Union, the Ukrainian Armed Forces must learn how to survive, live, and progress within their own severe resource limitations.

2. The Shift in Armed Forces Development toward an All-Volunteer System

It would be extremely difficult, under current economic constraints, to remove or greatly limit the current system of conscription. At the same time, a substantial surplus of conscripts has led to rising levels of draft evasion. The current trend throughout the world is toward all-volunteer service in the military as an effective way to avoid a wide range of draft problems and to maintain a professional force that can cope with the growing complexity of modern weapon systems. Some servicemen in the Ukraine already perform their duty today on a contractual basis. The State Program for Armed Forces Development envisions an equivalent number of contract servicemen and draftees by the year 2005, and an All-Volunteer Armed Forces by the year 2015. The shift toward an All-Volunteer Armed Forces imposes new requirements on an officer's education. These requirements concern not only sophisticated technical aspects, but also behavioral norms. For example, soldiers cannot be treated as a "free good" any more. The repressive forms of relationships with subordinates, inherited from the past, would need to be replaced by the norms accepted in democratic societies.² It is a challenging new task for military education to develop leaders who can function effectively in a democratic state where military service is strictly a matter of personal choice.

² See Anatoliy Grytsenko, *Civil-Military Relations in Ukraine: a System Emerging from Chaos*, 1997, pp. 41-42.

3. Development of Democratic Civil-Military Relations in the Ukraine

Civil-military relations in the Ukraine are shaped after that of the former Soviet Union. Although effective, civilian control in the former Soviet Union was neither democratic nor truly civilian. It is absolutely critical for all new democratic nations to teach officers how the military should operate in a democratic society. The successful development of new democratic civil-military relations in the Ukraine should be an important objective for the military and its educational system, since the Armed Forces are supposed to be a disciplined element of a democratic society.

4. The Information and Technological Revolutions

The Information and Technological Revolutions are two significant factors demanding constant changes in military education as certain factual knowledge and skills quickly become obsolete. Therefore, military universities in the Ukraine must institutionalize the process of continuing education. They should also place a premium on the development of conceptual thinking, critical judgment, and innovation.

5. Emergence of New Missions

With the end of the Cold War, the possibility of a large-scale conflict has decreased significantly. The Armed Forces of the Ukraine are increasingly engaged in a broad range of new missions, international peacekeeping activities under the auspices of the United Nations and the Organization for Security and Cooperation in Europe, participation in the Partnership for Peace program, joint exercises with leading NATO countries, and involvement with multinational peacekeeping subunits. The Armed Forces also participate in different domestic non-violent activities to assist local communities and regional authorities, such as guarding vital state objects, providing search and rescue

operations, and offering assistance in cases of catastrophe, natural disasters, and epidemics.

The new missions impose a demand upon military education to provide students with a qualitatively new level of knowledge, particularly in the areas of cultural and human rights awareness, international law, economics, and ethnicity. At the same time, the turbulent international environment requires military leaders who are critical thinkers and who are comfortable in dealing with ambiguity and uncertainty.

To respond effectively to new demands and to provide an adequate officer corps for the Armed Forces of the future, Ukrainian military education should be innovative, adaptable, and constantly moving forward. Shaped after the Soviet style, the four-to five-year-long education program at the military universities is still a reflection of the Cold War era to a great extent. It is still highly specialized with an overwhelming training process. Indeed, it is likely that some leaders responsible for the military educational system do not even realize today how obsolete Ukrainian military education has become. The first step in solving any problem is to fully understand its dimensions. Until then, the challenges in education will never be met and the opportunities will never materialize.

Financial constraints can explain many problems in such a state of affairs, but not all. The cost of ignorance definitely exceeds the short-term savings when considering the fact that today's graduates will lead and reform the Ukrainian Armed Forces of tomorrow.

Some observers describe the Ukrainian military education system as reactive, although it is currently in the process of a slow and painful evolution. This is the reason

why military students are still taught that the development of sound strategic deployment plans require the mobilization of all resources for defense against large-scale aggression, ignoring the fact that any serious military conflict today inevitably involves a coalition of states. Ukrainian students are not taught that preventive deployment, a force's demonstration of might at the right time and place, and impartial analysis of strengths and weaknesses of coalitions and alliances, might have a much greater effect in the present-day world.

Students are also not taught to understand properly a socially-oriented free market economy and international law, as well as civil-military relations and Information Technology. It is no wonder that the majority of Ukrainian officers today have a negative perception of the country's free-market economic course, as they see the economic hardship of the transitional period. The majority of officers apparently have insufficient knowledge of NATO and its missions.

The planned, lock-step, lecture-based, and closely controlled educational system is still followed. Training in military universities is still overwhelming. Military students can be trained in the subject matter, but they still need to be educated on what is not known about it. So far, new courses have not been added to the educational curricula.

The message of the above discussion is clear. The Ukrainian military education system needs a fundamental and rapid transformation to keep pace with major changes, both internally and externally, in social, political, economic, and technological areas. To do otherwise runs the serious risk of staying out of step with the rest of the developed world and being unprepared for the great challenges of the future.

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III. MILITARY UNIVERSITIES AS AGENTS FOR CHANGE

A. MILITARY UNIVERSITIES AS A PLACE TO START REFORM

Knowledge is the key, I think. A professional must master a body of knowledge, yes, but knowledge is never static. To be a professional means that new information is constantly sought and the ideas that prevail are constantly updated. And knowledge, ideas, information are not limited only to the military, but come from all sectors of society. Ideas are discussed, debated, fought about.

Dr. J.L. Granatstein³

There is no better place to start the reform in military education than military universities and the National Academy, as they remain the main source of preparing officers for the Ukrainian Armed Forces. The very first step that needs to be taken is making people aware of the present situation in military education. Not only should some military experts and academia be involved with this issue, but also the public, the media, and the state's leadership. What is needed is an open debate on this issue and a clear understanding that the Ukrainian military educational system may not even be on the right track yet. The fundamental questions to be answered are:

- Where are we now in military education?
- What are the overarching issues for military education at the start of the 21st century?
- What kind of officers do we have today and need for the future?
- Where should we go from here to have the "officer of the future"?

There is an obvious need for a clear vision of military education to develop an adequate officer corps for the future. Honest answers to the above questions will help in identifying the skills, knowledge, and attributes the officer is expected to possess.

³ See Dr. J.L. Granatstein, *Military Education*, 1998, p. 1.

Changes in organizational structure, educational curricula, and teaching methods must not be made to create the illusion of progress, but to guarantee that the constant challenges of today and tomorrow will be met. Obviously, there is a strong correlation between economic and social progress in a society and processes in the Armed Forces. Without adequate social support for servicemen, there can be no reform. It is definitely not the best time for the country's economy. If military education is thought to be expensive, however, one should consider the cost of ignorance and the consequences of maintaining the status quo. But the "bottom line" from the previous chapters is clear: the status quo in military education can no longer be maintained if we want to keep up with the developed world. According to Western experts, military education has a tendency to lag 10-15 years behind political, social, and technological changes. As for Ukrainian military education today, the gap is undoubtedly larger. Apparently, if some shortcomings in military education are not resolved today, tomorrow we shall become an anachronism. Investments in education must occur during both the good times and the bad.

What is important today is to lay the first foundations of educational change, steadfastly and without error. Outlined below are some of the most important "foundations" that should be developed without delay.

B. A SHIFT IN MIND

The most important and difficult change that should be implemented in the military educational system does not require any significant financial outlay. This is a "Shift of Mind":

All are concerned with a shift of mind from seeing parts to seeing wholes, from seeing people as helpless reactors to seeing them as active participants in shaping their reality, from reacting to the present to creating the future (Peter M. Senge, "The Fifth Discipline," p. 69.)

Applied to military education, a shift of mind means, first of all, to be open to new concepts, new sources of information, new ideas, and new possibilities. It means to forgo outdated educational methods and to overcome linear thinking. It also means to respond positively and creatively to the rapid changes brought by technological innovations and a turbulent international environment. The changes, for certain, will occur more often and even faster in the future. We not only need military training, but also modern education, for our officers. We cannot see things one way any more, and we must not insist on knowing exactly what everyone will "bring to the Christmas Party."

Unfortunately, in most areas of military activities, Ukrainian officers continue to be guided by outdated ideas and decisions. There is a common trait in some Ukrainian officers that loves the simplicity and predictability of the past, keeping them imprisoned by traditional attitudes. To quote, for example, Colonel General Ivan Bizhan:

*It is difficult for many senior officers to move away from the old views, where any tactical assignment is considered on the scale of global strategic offensive operations across a great expanse. We should proceed from the fact that there will not be a situation in Ukraine where all of the nations that surround it will begin to wage war against it simultaneously. The NATO countries with which we are now collaborating, and from which we are receiving a certain amount of financial assistance, will scarcely conceive of waging military operations against us. We thus need to change our views of the tasks of the Armed Forces accordingly.*⁴

⁴ General Bizhan presented the view during his meeting with Air Forces Board members in the city of Vinnitsa. It was published in a reportage: Lieutenant Colonel N. Lysytsya, "Results of the Training Year-The Air Force is Training, Reforming and Being Preserved", Kiev NARODNA ARMIYA in Ukrainian, 14 December 1995, p. 2.

A need to change our views requires, first of all, a change in the way we think and a so-called shift of mind. No ready solutions are available. These changes will eventually occur on their own, but not easily and only over time, as a new generation of officers emerge and the Ukrainian Armed Forces are further integrated within the world community.

C. A CHANGE IN THE TEACHING METHOD

No fundamental changes have occurred for decades in the method of instruction applied in Ukrainian military education. The method worked well when the Ukraine was a part of the Soviet Union because the core objective of military institutions was to prepare highly trained officers for the Armed Forces. Education was severely limited due to the dominance of ideology upon broad knowledge. The main characteristics of the instructor-teaching method, used in military universities and which is still in effect today, are summarized in Table 3.1.

The end of the Cold War, the new country's independent status and its adherence to the market economy, tremendous changes on the international scene, technological advances, and emerging educational concepts impose new requirements on teaching methodology. It is high time to rethink how teachers teach and students learn. There is a need not only to diversify instructional techniques but also to shift toward a student-centered teaching method. Apparently, the shift toward this new method will not be easy for military universities because it calls for substantial changes in long-established techniques and procedures. However, this is the only way to generate the process of innovation, critical judgment, and conceptual thinking. The new military needs soldiers

who use their brains, deal with a diversity of cultures, tolerate ambiguity, take initiative, and ask questions, even to the point of questioning authority.⁵

Table 3.1. The Main Characteristics of the Instructor-Teaching Method

INSTRUCTOR – TEACHING METHOD
Instructor-centered with little flexibility for instructor
Lesson-plan directed
Closely controlled
Instructor's role is to transmit knowledge
Practical-exercise oriented- Sequential requirements Platform-controlled
Exam-motivated
Measured by contract hours
Aimed at lowest common denominator of students

Source: Adapted from Major General W. Norris, "Review of Army Officer Educational System," Naval Postgraduate School, Monterey, California, 1971, pp. 9-3.

The main characteristics of the student-centered teaching method are summarized in Table 3.2.

Table 3.2. The Main Characteristics of the Student-Centered Teaching Method

STUDENT-CENTERED METHOD
Less control
Students bears responsibility for learning
Flexibility for instructor
Learning-objective directed
Instructor's role is to facilitate learning
Learning is self-paced to greater extent
Contact hours reduced

⁵ See A. Toffler, and H. Toffler, War and Anti – War: Survival at the Dawn of the Twenty-First Century, 1993.

Practical-exercise oriented-
Requirements solved through individual and group study in and out of class
Individual and group solution discussed in class
Peer-group motivated
Aimed at highest level of effort
Developing new ways of assessing student performance

Source: Adapted from Major General Frank W. Norris, "Review of Army Officer Educational System," Naval Postgraduate School, Monterey, California, 1971, pp. 9-3.

For some countries, such as the United States, the idea of a student-centered method (Table 3.2) is definitely not "earthshaking" since this concept was implemented long ago. Besides, military education in the United States is a subject for continuing adjustments and often transformational changes. For example, not long ago the public scrutinized the United States military academies, and their very existence was challenged.⁶ Despite many impressive achievements, profound changes in military education are in place today in the United States. The Ukraine, on the other hand, has a long way to go to shift to a new educational method. It will take time for both students and teachers to adjust to such a change. The successful implementation of a new methodology is extremely difficult, for example, because of the dominance of the old culture and the lack of a critical mass of adequate teachers. A new generation of educators must be developed to take their broad, interdisciplinary skills and place them on a level for every military student. The quality of the faculty is also a crucial factor. It is highly desirable and vitally important to increase the number of officers receiving military education abroad in such countries as the United States, Germany, and Great

⁶ S. Shuger, *The Case Against the Military Academies*, 1994, pp. 20-22.

Britain. The Ukraine is an active participant in the United Nations peacekeeping operations and "Partnership for Peace" program, and this is another important source of new educators. Ukrainian officers, engaged in such activities, have a significantly broader outlook and more international experience. The critical mass of such officers can facilitate the necessary changes.

D. LEADERSHIP AND MANAGERIAL COMMUNICATION SKILLS

1. Leadership

The view of the role of military human capital as a decisive factor in the modern battlefield is shared by quite a number of different states. As Lieutenant General Richard A. Chilcoat, President of the US National Defense University, has observed, "the US has great ships, great tanks, great airplanes. But you can't make it happen without great leadership."⁷ Deborah Lee, former U.S. Assistant Secretary of Defense for Reserve Affairs, expressed the same view at a conference at the Naval Postgraduate School in 1998:

We know that technology alone is not enough to keep us strong in the 21st century. In today's rapidly changing security environment, we must also continue to focus on people and to adapt the education and training of our future military leaders. We must anticipate new challenges and change to meet them (Deborah Lee, Naval Postgraduate School Conference, January 15, 1998, p. 1).

The People's Liberation Army of China shares this view as well. Despite plenty of human resources and a dying desire to have great ships, great tanks, and great airplanes, it recognizes that "the *individual* is still the key in fast-paced warfare" (Charles F. Hawkings, "The People's Liberation Army: Look for the Future," p.23). India's military leadership, in turn, by recognizing the officer corps as the most "valuable asset,"

⁷ Richard A. Chilcoat, Building National Defense University for the Future, 1998, pp. P5A-19.

found the funds, despite the country's economic hardship, to provide all graduates of military colleges in the year 2000 with personnel computers.

The military of the 21st century, more than ever, will need *leaders* able to anticipate change, to deal with uncertainty, to present ideas to communicate vision, and to lead organizational change. The fundamental difference between managers and leaders, according to Cappelzoli, may be summarized as activities of vision and judgment, effectiveness versus activities of mastering routines, and efficiency. Managers function in the lower cognitive domain of knowledge, comprehension, and application. Leaders function in the higher cognitive domain of analysis, synthesis, and evaluation. Managers are people who do things right, and leaders are people who do the right things.⁸

Shaped after the Soviet style, the military education in the Ukraine is still oriented toward creating "maintainers of the system." There is no course on leadership in the curricula at any military university. It is very difficult to move away from old views because of inertia, old habits, and discomfort with the unknown. The managerial culture that has shaped our thinking gives little help, and the environment in military universities encourages the "development" of maintainers. Without a fundamental shift of mind (as discussed in Chapter III) and, therefore, profound changes in cultural and organizational behavior, any attempts to merely add a course on leadership would prove to be very ineffective unless the officer learns a new attitude toward subordinates. The officer's superiors are really more comfortable with the old attitudes, so they immediately begin to disconfirm the new attitudes and thus initiate a new cycle of change back toward the

⁸ Cappelzoli, T.K., Managers and Leaders: A Matter of Cognitive Difference, The Journal of Leadership Studies, Vol.2, No. 3, 1995.

original state. Any significant change should be more than an intellectual process; it should be a psychological process as well.

Gilman and Herold provide some insight into the challenge of presenting leadership curricula for military officers:

Leadership curricula for the military profession have to stipulate specific learning objectives as precisely as possible, but they also have to state interdisciplinary, general learning objectives. Whereas specific objectives may vary, the general objectives will ensure that the corporate unity of the military profession remains intact irrespective of changes in modern society, modern warfare and modern defense policy. These objectives are: participation; creativity; flexibility; critical reasoning; the ability to obtain information and organize it; the ability to communicate and exchange information; social awareness; endurance in conflict; readiness to accept responsibility and criticism, and the ability to inspire corporate unity (Gilman, E. and D. E. Herold, "The Role of Military Education in the Restructuring of Armed Forces", p. 16).

It is difficult to come to a practical recommendation on this issue since the dynamics of transition and the need for endings can be clearly seen everywhere. Nevertheless, significant progress can be achieved the moment the military student is relieved to a large extent of overwhelming training and constant control through daily routine procedures. At the same time, military students should bear some responsibility for learning. Less control imposes greater demand for self-discipline and careful planning activities to meet the deadlines for all necessary requirements and assignments. This is the starting point in turning a passive student into an active learner.

This small, but principal change can have enormous positive consequences in the long run. There is no doubt that it would breathe life into the learning process. Careful analysis of numerous leadership courses offered at the United States military academies and postgraduate institutions could assist in creating a leadership course tailored to the

specific needs of the Ukrainian Armed Forces. The Naval Postgraduate School is a good place to start.

The course should cover some fundamental issues, including the following:

- Introduction to leadership theory and principles;
- Understanding of human behavior, leadership techniques, management and planning structure;
- Handling the military unit in stressful situation with feedback on performance;
- Officer professional self-development and self-assessment;
- Development of subordinate leaders; and
- Historical and future perspective for military leaders.

True to the spirit of a new approach toward leadership education, students should be allowed to choose advanced courses at civilian colleges and universities that would play a major role in supplementing the officers' education. Unfortunately, there is no room today in Ukrainian military universities for individual decision-making on the part of students because they have to follow a curriculum matrix that does not allow for any optional courses or changes in schedule. Such inflexibility in the educational process is, undoubtedly, inherited from the Soviet educational system, with its illusionary civilian education for officers, such as "the engineering of artillery systems." The officers' career was for a lifetime. Today, professional education must be tailored to individual needs, because retirement from the military is not to be the end of one's life, but merely a change of careers.

Sadly, economic hardship may prevent the Ukraine from prompt and necessary changes in military education, and officers' potential and initiative may thus remain undeveloped. The Armed Forces do not have significant problems with recruitment for

military universities today, because of relatively few opportunities in the private sector. If conditions in the private sector change, the Ukrainian Armed Forces would undoubtedly experience a considerable challenge in recruiting and retaining the best and the brightest.

2. Managerial Communication Skills

Ukrainian military universities should provide students with managerial communication skills, and courses in this area should be added to the curriculum matrix. It is apparent that many military students have never been taught to communicate, first of all, with soldiers. The problem here is that the Ukrainian Armed Forces have come from a part of the Soviet Armed Forces. The transformation of part of the Soviet Army deployed on Ukrainian territory into the Ukrainian Armed Forces also brought with it the spirit, world outlook, and traditions of the Soviet Army. The country's economic hardship and draft evasion only worsened the inherited problems such as recruit hazing, corruption in the ranks, and violations of military discipline. Despite the rhetoric of Communist leadership about the value of human life, a soldier was viewed as a "free good," and repressive treatment of subordinates was often used to maintain order. In such an environment, preserved from the past, some Ukrainian officers quickly learned the "communication skills" that have little in common with behavioral norms accepted in normal societies. The strategic goal of developing of an All-Volunteer Armed Forces by the year 2015 in many ways reflects a wish to dispose of the many problems that resulted from the draft.

With a gradual transformation from the draft to contract service taking place today, soldiers' views regarding relationships between leaders and subordinates are

changing toward the norms and behavior accepted in democratic societies. The crisis of maintaining order in the Ukrainian Armed Forces relates largely to the fact that the old is dying and the new is slowly taking its place. There is evidence of confusion among some military leaders who adhere to the outmoded and harmful repressive methods in ruling their units. These methods, once taken for granted, have lost their effectiveness, as Grytsenko observed: "If order can be instilled in the Army only by dictatorial methods and threats, there will be a temporary and frail order" (Anatoliy S. Grytsenko "Civil-Military Relations in Ukraine: A System Emerging from Chaos," p. 42).

As society becomes more oriented to market economic conditions, it is likely that the Ukrainian military will shift from its value orientations to those characteristics of professional hired armies. As to value priorities, the Armed Forces refer, first of all, to *moral authority*⁹. It is necessary to see these very logical current changes in the behavior of servicemen and respond accordingly. To escape from a prolonged crisis in the boss/subordinate relationship, the officer should master new communications skills and a new attitude toward subordinates.

Managerial communications courses, which are missing today in Ukrainian military universities, would provide students with the communication theories, strategies, and skills needed to manage and lead in the new military environment. Appendix C provides a preliminary bibliography for a leadership and managerial communications skill course.

Based on courses offered at the Naval Postgraduate School, the following

⁹ See Grygoriy Perepelytsya, *The Internal and External Formation of the Armed Forces of Ukraine in the Next Century*, p. 6.

fundamental topics should probably be covered:

- Strategic media choice
- Succinct briefings
- Team communication process
- Listening skills
- Communication skills
- Art of persuasion
- Bottom-line Writing ¹⁰

E. CIVIL-MILITARY RELATIONS

Civil-military relations play a crucial role in every society. Ignorance and inattention to such important issues can lead to mistrust between military and civilian sectors of society and alienation of the military from society. This dangerous tendency can result in a civil-military crisis that turns the Armed Forces into a destabilizing factor in the society. On the other hand, with proper attention and careful construction of civil-military relations,

the military could conceivably play a proactive role in accelerating reform building, national unity, and imparting a sense of discipline in the state organization (Samuel P. Huntington "Political Order in Changing Societies", p.203).

The concepts, principles, and practice of civil-military relations in the Ukraine were inherited from the Soviet and Communist systems. During Soviet times, civilian control over the military consisted of Communist Party control at every level of the

¹⁰ See John S. Fielden and Ronald E. Dulek, *Bottom-Line Business Writing*, 1984.

Armed Forces. That control was neither democratic, nor truly civilian, but it was effective within the overall structure of the totalitarian state.¹¹

The end of the old system brought forth the new task of rebuilding civil-military relations from scratch. The Ukraine managed to create a framework for civilian control over the Armed Forces, as the necessary constitutional provisions are now in place and a set of main defense-related laws have been adopted.

Unfortunately, debates on civil-military relations are taking place in the media, numerous analytical centers, and political parties, but not in military universities. The result is that military students do not possess adequate knowledge on this subject. Such an attitude is very short-sighted because graduates will be able to neither understand nor maintain good civil-military relations. Maintaining durable civil-military relations becomes even more important today as the preferences of society are changing and military affairs become less important to the Ukrainian people. The military can no longer be considered the chief preoccupation of the State and, therefore, a substitute for economic and social reform.

The development of officers who understand and accept civilian control in all aspects should be one of the principal requirements of military education. But it cannot occur without significant changes in the curricula.

A course on civil-military relations would help military students better understand the complex interaction between the military and society as well as the importance of

¹¹ See Anatoliy S. Grytsenko, *Civil-Military Relations in Ukraine: A System Emerging from Chaos*, 1997, p. 10.

democratic oversight and civilian control. Fundamental topics and activities suggested for the course are as follows:¹²

- **The Meaning of Democratic Oversight of Armed Forces**

The focus here is on the military understanding of the concept of boundaries between rights and responsibilities of political authority and military.

- **Learning from Others: Civil-Military Relations in Western Democracies and the United States**

Only some features are unique in civil-military relations in the Ukraine.

Therefore, it will be beneficial to learn from the countries with long standing democratic traditions, which first of all would be Western Europe and the United States. The objective of the military education in democratic societies is to harmonize professional efficiency and democratic values, which are determining factors in civil-military relations. The concept and the need for building new civil-military relations for a new democratic environment should be clearly elaborated.

- **Legal Aspects of Civil-Military Relations**

The emphasis here is on the legal framework of civil-military relations in the Ukraine:

- Constitutional provision that governs the Armed Forces of Ukraine;
- The National Security Concept and Military Doctrine;

¹² For details, see Anatoliy Grytsenko, *Civil-Military Relations in Ukraine: On the Way from Form to Substance*, 1997, pp. 16-23, 29-31, 40-47; and Anatoliy Grytsenko, *Defense Reform in Ukraine: Defining Strategic Goals & Military Functions of the Armed Forces*, 1998, pp. 12-42.

- The laws on the Armed Forces: the purpose of the Armed Forces; command and control procedures; the deployment of the Armed Forces; etc.;

- The legal aspects of the use of the Armed Forces in combating escalating internal conflicts (such as organized crime and terrorism) and limitations;

- The legal aspects of providing support to the state in case of catastrophes, natural disasters, social conflicts, and epidemics;

- The legal aspects of providing support to the state authorities in conducting rescue operations;

- The legal framework for the Armed Forces participation in ecological monitoring, observing standards for nature protection, and elimination of ecological consequences of military activity; and

- The legal framework for the participation in international military cooperation, international search and rescue, humanitarian, and peacekeeping operations under legitimate mandate, etc.

- **Educational and Training Support for Civilian Defense and Security Representatives¹³**

It is not important how good theoretically the democratic mechanisms are for civilian control if there are no competent parliamentarians and civilians to fill governmental positions, if there are no civilians who might speak on an equal footing with the military and do not understand the justifiable needs of the Army.¹⁴ The lack of civilian experts turned out to be the main obstacle in establishing effective civilian control in Ukraine. As a

¹³ See Todor D. Tagarev, *The Role of Military Education in Harmonizing Civil-Military Relations*, 1997, pp. 34-35.

¹⁴ See Donnelly, C., *Defense Transformation in the New Democracies: A Framework for Tackling the Problem*, *NATO Review*, Vol. 45, No. 1, 1997, p. 18.

rule, practically all defense experts in the Parliament and Government are military.

The military institutes and National Academy need to facilitate the education and training for civilian defense and security representatives supported by the new program within the civil-military relations curriculum. (See Appendix B for a preliminary bibliography for a civil-military relations course). Civilians ought to get through the course and study together with officers. Through lectures by active politicians and state officials and visits to different organizations and military facilities, civilian and military students will be exposed to "real world" problems, as well as to each other's views, perceptions, values, and ways of thinking.¹⁵

So far, the progress of the separation of military and civilian responsibilities in the Ministry of Defense, and replacement by civilians in some military positions is taking place very slowly. In fact, the prolonged period of suffering over the adoption of a new military doctrine, force structure, planning, and conduct operations is an obvious explanation, apart from economic constraints, for the lack of civilian expertise and participation as well as for antiquated thinking by some of the military leaders.

As the President of the Ukrainian Center for Economic and Political Studies observes:

¹⁵ See Todor D. Tagarev, *The Role of Military Education in Harmonizing Civil-Military Relations*, 1997, p. 35.

It is so obvious that the military sphere should not be left in the hands of mere militaries. One way or another, it affects and is influenced by many other factors, such as political, economical, diplomatic, ecological, social, societal, etc. Therefore, many government and non-government institutions must be involved in the process of military reform (Anatoliy S. Grytsenko "Civil-Military Relations in Ukraine: A System Emerging from Chaos," p. 30).

- **Link with Society**

The faculty of civil-military relations needs to plan special activities to sustain the link between the military and the public through casual events, briefings, conferences, seminars and the like. Such activities will promote trust and respect of the Armed Forces and create a sense of shared nationhood.

- **Further Integration of Military and Civilian Education**

Despite significant progress made in the integration of military and civilian education, there is still little flexibility for military students in the choice of advanced civilian classes. The faculty's efforts will contribute to further improvements on this issue to reflect the personnel needs of the Armed Forces and provide additional educational opportunities.

F. INTERNATIONAL LAW AND ORGANIZATIONS

The Armed Forces of the Ukraine are an active participant in different international activities. They promote the country's prestige and its further integration into the world community, including European security structures.

Since 1992, almost ten-thousand Ukrainian servicemen have gained experience in peacekeeping operations and raised their professional level. In recent years, the Ukraine's participation in international peacekeeping operations has expanded considerably.

Since 1995, the Ukraine has been a participant of the Partnership for Peace program. The major task of this cooperation is to act jointly with NATO states in peacekeeping, search and rescue, and humanitarian operations (Anatoliy S. Grytsenko, "Defense Reform in Ukraine: Defining Strategic Goals & Military Functions of the Armed Forces," p. 39).

The Ukraine supports the idea of forming international peacekeeping units. The formation of such units is an important confidence-building factor in relations with neighboring countries. Some notable success in this direction has been achieved. For example, a Ukrainian-Polish peacekeeping battalion has been formed, and a joint-engineer battalion, "Tisza," involving Hungary, Romania, and Slovakia, is under way.

These new missions require from military students a qualitatively new level of awareness regarding international law, ethnic, cultural, and human rights. They also require a deeper understanding of the tasks, principles, and structure of global and regional international and transnational organizations, including the United Nations, the North Atlantic Treaty Organization, and the Organization for Security and Cooperation in Europe.

The aforementioned subjects are largely ignored in the military universities of the Ukraine. Indeed, this is one of the fundamental problems in the military education of

Ukrainian officers. This results in having to provide short, urgent training to servicemen every time a unit is sent abroad for peacekeeping and the need to always rely on a few officers who possess the necessary skills and competence.

The Ukrainian educational system should provide officers not only with academic knowledge of international and humanitarian laws, but also with a relevant analysis of current conflicts. Recent years have demonstrated the poor efficiency of the collective security system, based on the United Nations. International conventions and treaties were violated in Chechnya and Tajikistan, Kosovo, and Afghanistan. Lessons can be learned from these and other conflicts and then applied by Ukrainian officers in future operations involving collective security.

A carefully designed course on International Law and Organization would help military students to deepen their understanding of the complex interaction of interests of different players on the world scene and the role of international law. Whatever the name of the course, it should be developed with the help of distinguished specialists in international law and organizations, and military experts who are knowledgeable in the area. It should also be constantly updated. The faculty should bring a strong understanding of the realities of our turbulent world, not just academic knowledge. The course should cover as a minimum the following topics:¹⁶

- **International Law Fundamentals**
- **The Role of International Organizations in Today's World**
- **The United Nations**
 - Objectives of the United Nations

¹⁶ See Appendix E for a suggested preliminary bibliography for the course.

- Basic Principles of the Charter
- Principal Organs of the United Nations
- The Membership
- Voting Rules and Practices
- Peaceful Settlement of Disputes
- Collective Security
- The United Nations Peacekeeping Missions
- **Organization for Security and Cooperation in Europe**
 - Objectives of the Organization for Security and Cooperation in Europe
 - Principal Organs of the Organization for Security and Cooperation in Europe
 - The Membership
 - Organization for Security and Cooperation in Europe Peacekeeping Activities
- **North Atlantic Treaty Organization**
 - Missions of the North Atlantic Treaty Organization
 - Organs of the North Atlantic Treaty Organization
 - The Membership
 - Collective Security Issues (Partnership for Peace Program, etc.)

G. ECONOMIC COMPETENCE

The transition of Ukrainian society toward democracy brought to a halt the practice of prioritizing the military over economic reconstruction. For the first time since the collapse of the Soviet Union, society has questioned the wisdom of allocating a significant amount of resources to the military. The economic hardship experienced during the transitional period from a state-administered economy to a market-based economy imposed severe financial limitations on the military and led to a further downsizing of the Armed Forces, along with sacrifices in job security, career progression and the quality of life for servicemen. The Ukrainian officer needs to understand the

socially-oriented free-market economy today more than ever before. The difficulties of the transitional period and economic incompetence among the majority of Ukrainian officers have led to negative perceptions of economic reform and the free market in particular, and even stimulated a desire to return to the predictable and simple conditions of the past.

Regrettably, current military education does not provide students with a sufficient knowledge of the market economy. Despite the existence of two economic courses in the curriculum of military universities (“Economics Theory Fundamentals” and “Economics of Military Organizations,” as seen in Appendix A), the majority of students do not have a clear picture of why full-blown, rigid central planning economies collapsed in almost all countries, and why countries with highly performing economies adhere to the free market. The situation with economics courses is similar to that with learning English: despite many years spent at school and in the military universities, only a few military graduates actually leave with some higher level of proficiency. (This topic is further discussed in Chapter IV, “Areas of Special Interest”).

The problem here is not only that the syllabus of economic courses is inadequate and, therefore, should be comprehensively revised, but that the economic competence of many teachers is relatively poor. In fact, no one can blame students for an inadequate knowledge of the market economy if their teachers are mostly the same people who instructed previous generations of military students on the “advantages” of a centralized economy. Nowadays, the same professors “successfully” teach new students about the advantages of capitalism.

It is apparent that economics courses in Ukrainian military universities should be comprehensively revised. Students of such courses should understand that a market economy is not considered successful when a few people in the country are incredibly wealthy and the rest of the population is incredibly poor. A properly functioning market economy places the middle class in a strong position to provide for the state's protection of the poor and disabled. It is also true that the state with a free-market economy is able to provide social support for servicemen.

The economic competence of Ukrainian officers will remain low unless the proposed course is based on serious literature and case studies along with an increased emphasis on quality faculty. As for the latter, the natural gradual replacement of the faculty with recent graduates from economic institutes and the wide involvement of prominent civilian economists in the military educational process would help. It is also highly desirable to increase the number of Ukrainian officers attending economics courses in other countries that have a long-standing and successful free-market economy.

A good starting point for the creation of a new syllabus for economics courses is to look, for example, at such courses offered at the Naval Postgraduate School. A review of existing courses at this institution suggests that the following areas be covered:¹⁷

- **Theories of Economic Development**
 - The Classical Theory of Economic Stagnation
 - Marx's Historical Materialism
 - Rostow's Stages of Economic Growth
 - The Vicious Circle Theory
 - Balanced versus Unbalanced Growth

¹⁷ See Appendix F for a recommended bibliography.

- The Dependency Theory
- **Varieties of Capitalism in the 20th Century**
 - England
 - United States
 - Germany
 - Japan, etc.
- **Eastern European Economies and Reforms**
 - Former Soviet Republics
 - Poland
 - Hungary, etc.
- **Case Studies**
 - CISCO Systems, Inc
 - South-West Airlines
 - Microsoft
 - The Advance Bank in Germany
 - Walt Disney Co
 - Ericsson
 - Gillette, etc.
- **Discussions**
 - What We Can Learn from the Collapse of Soviet Economy
 - The Future of the World Economy (based on United Nations study)
 - All the bad things you here about markets are true: unemployment, inflation, inequalities of income and wealth, monopoly power, negative externalities, and insufficiently supplied public goods. You know, there is only one thing that is worse than the market, and that is no market.¹⁸

¹⁸ Barkley Rosser and Marina V. Rosser, Comparative Economics in a Transforming World Economy, 1995, p. 25.

IV. AREAS OF SPECIAL INTEREST

A. ENGLISH AS A SECOND LANGUAGE

Sometimes, obvious things are not obvious at all, and this is true when looking at the present state of the English language instruction in Ukrainian military universities. There is little argument that “globalization” has elevated the importance of communication and fostered the emergence of a “universal language.” English, with its omnipresence on the Internet, has become the *de facto* standard for global communication. Other reasons make the issue of mastering English apparent for Ukrainian officers:

- The Ukraine is actively involved in United Nations peacekeeping operations, the “Partnership for Peace” program, and joint exercises;
- The accelerated speed of information processing and communications via the worldwide network requires the ability to search and understand information in an “English format.” Information is power and access to information should occur as fast as possible; and
- A large number of Ukrainian officers sufficiently proficient in English will be able to facilitate communication among militaries of different countries on all levels, thereby promoting an understanding of different cultures, building fruitful cooperation, and enriching knowledge.

Unfortunately, only an insignificant number of graduates from Ukrainian military universities can speak fluent English. The problem is that not many changes have occurred in the methodology and teaching attitudes since the Cold War, when English was taught for one narrow military purpose. This type of approach did not lead to a fundamental understanding of the English language. The majority of students were interested in English only to pass the exam, which, however, was not very demanding

since English was considered as a “dead language.” During the Cold War, students were left with the impression that hardly anyone would ever use English for anything.

Nowadays, such a method of “teaching” is not only outmoded, but ridiculous. Today, we are open for communication to the world, but the old culture still affects organizational behavior. Little attention is paid to the current unsatisfactory situation with English in military education. Technical training is acceptable, as we seem to be saying, but education that aims to give an officer a broader perspective is, by definition, still seen as suspect by some military authorities.

The quality of the faculty here, as elsewhere, is crucial for success. Regrettably, many teachers have not had any practical experience in communicating with native English speakers at all during their teaching careers. Obsolete books and equipment, and outmoded approaches only exacerbate the situation.

Most changes are occurring today in universities that are actively involved in cooperation with the NATO Liaison Office, the Canadian Embassy, the United Kingdom Ministry of Defense, a variety of English learning centers, and civilian linguistics colleges. A handful of volunteers from Great Britain are teaching English in some Ukrainian military universities.

Military universities need a unified, comprehensive program on the development of English skills for the Armed Forces. Such a program should be developed based on the scientific approach, with the close cooperation of English experts from the United Kingdom and the United States. To ensure the development of a sustainable expertise

with English language skills among Ukrainian officers, some important steps need to be taken. These include:

- Rewrite curricula and syllabuses;
- Design, write, and collect appropriate materials;
- Train and develop teachers;
- Establish an appropriate testing and assessment system;
- Determine the conditions for a successful language learning environment and educational principles; and
- Determine the suitability and effectiveness of using technology in the educational process, e.g., Interactive Multimedia.

B. INFORMATION TECHNOLOGY

The Information Revolution is one of the most important events of modern times, demanding change in military education. As Senge writes:

Perhaps for the first time in history, humankind has the capacity to create far more information than any one can absorb, to foster far greater interdependency than anyone can manage, and to accelerate change far faster than anyone's ability to keep pace. Certainly the scale of complexity is without precedent (Peter M. Senge, "The Fifth Discipline," p. 69).

Sadly, hardly any Ukrainian military university today provides Internet access to students.

One can easily get pessimistic when considering the harmful consequences of an approach that eventually leads to technological incompetence of personnel, diminishing quality of any research projects, technological backwardness of weapon systems, obsolescence of the process of planning and conducting military operations, command and control, intelligence, communication, education, training, and many other associated problems.

Financial constraints cannot be an excuse for such a state of affairs, if we truly desire to have

...the modern, with Euro-Atlantic model characteristics optimal by strength, multifunctional, mobile, highly professional, well equipped, reliably supported, capable of accomplishing assigned missions in any environment... Armed Forces ("The State Programme of the Ukrainian Armed Forces Reform and Development until 2005, 1997, p.10).

To achieve such a goal, our officers need to be provided with a sufficient knowledge of technology. True, technology is expensive. Yet, it is more affordable today than ever before. And it will be even more affordable in the future. On average, every year and a half, the capacity of technology doubles for the same price. In other words, the previous technology becomes twice as cheap every 18 months.

The discussion here is not about video communications with the military of other countries from each dormitory room in the Ukrainian military universities or the application of artificial intelligence programs in the educational process. The discussion here is simply about the *bare minimum* of technological competence for military students. The time has come to mandate some fundamental computer skills for Ukrainian military students and faculty. Three steps seem to be crucial in accomplishing this objective:

- Connect at least one computer lab to the Internet in every military institute;
- Develop and implement computer courses; and
- Bring technologically knowledgeable personnel into the educational process.

The preconditions for providing Internet access do exist in many universities, as they have a Local Area Network. The integration of military and civilian education creates the possibility of broad involvement of information technology specialists from

civilian universities in technology and the like. The payoffs are truly immense and would undoubtedly offset any cost. Benefits of the three steps listed above include the following:¹⁹

- Provision of new ways for students to receive, understand, and manipulate information;
- Natural expansion and enrichment of the learning process;
- Promote the students' incentives to become active learners;
- Possibility of timely updates of the curriculum;
- Interconnection of faculty members and students with other professionals and the worldwide pursuit of similar interests;
- Increase quality of research projects through access to up-to-date information;
- Accommodation of individual needs in the educational process; and
- Preconditions for distance learning opportunities.

Connection to the information society would reveal the shortcomings of our educational system much faster and better than anything else. A good metaphor comes to mind: looking for something in a dark room with a bright flashlight and truly seeing the contents of the room for the first time.

Greater access to the "information superhighway" in military universities would create a great challenge, new opportunities, and increased competition for everyone in the educational system. It would question the wisdom of doing things in the "traditional way" and demand a constant update of skills and expertise. Unfortunately, it would also threaten many people and increase resistance to change, which is understandable. For example, the introduction of the Global Positioning System would question the wisdom of teaching students to use obsolete and heavy equipment and methods in topography,

¹⁹ Adapted from Todor Tagarev, *The Bulgarian Military Education at a Crossroads*, 1995, p. 12.

and the necessity of keeping many officers in that curriculum. However, the dynamics of rapidly advancing Information Technology marks a point of no return to the past.

At least two technology orientation courses should be part of curricula as a first step toward computer proficiency. The first course is "Introduction to Computer Technology." The objective of this course would be to provide students with an understanding of the fundamentals of computer technology. The course would cover at a minimum the following:²⁰

- **Computer Basics**
 - What a computer is and what it can do
 - Basics terms and definitions
 - Common peripheral devices
- **Inside the Computer**
 - Data storage
 - The functions and relationships between the internal components of a computer: the motherboard, processor, memory, ports, buses, expansion boards, and PC cards
- **Popular Productivity Software**
 - Word Processing
 - Presentation
 - Spreadsheet
 - Database
- **Windows Operating System**

The second course would be "Information Technology." This is a more advanced course that would provide students with knowledge of the Internet and related technologies.

²⁰ See Appendix G for a preliminary bibliography.

The course would cover at a minimum the following:

- **Local Area Network**
 - Star Topology
 - Ring Topology
 - Bus Topology
- **The Internet**
 - Data Transmission
 - Making the Internet Connection
 - Internet Servers and Addresses
 - Browsers
 - Email
 - Internet Security
- **Computers Tomorrow**
 - Expert Systems
 - Natural Language
 - Robotics
 - Virtual Reality, etc.

These two computer courses might not be enough to achieve Information Technology competency, but they are necessary and offer a strong beginning.

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V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS AND RECOMMENDATIONS

The Ukraine has experienced significant changes in its economic, political, social, and military systems. The implementation of reform in the military sector under the difficult conditions of transition from a totalitarian state to democracy has been accompanied by severe financial constraints and a decline in public willingness to carry the burden of defense. It has resulted in defense budget cuts and a reduction in the size of the military. It has also led to an alternative type of military service based on a contractual, voluntary commitment. The Ukraine will likely follow the worldwide trend toward abolishment of compulsory service and establish an All-Volunteer Armed Forces by the year 2015.

The main goal of military reform in the military sphere is to develop a modern and highly professional Armed Forces for the Ukraine. The objective of building the modern Ukrainian Armed Forces calls for shaping an officer corps of the new generation, which, in turn, calls for an appropriate reorganization of the military educational system. The Ukrainian military educational system is evolving today within rigid traditional attitudes. Outdated teaching methods and curricula, inadequate quality of the faculty, and obsolete equipment keep military universities in a reactive, "catch-up" mode. Such a system is unable to produce officers who can respond effectively to unprecedented changes on the international scene, changes in public opinion toward the military, cultural movement, technological advances, and the information revolution. More than ever before, military education needs to be adjusted to meet the demands of the present and

likely future. Emphasis should be on critical thinking, adaptability to changes, creativity, and innovation. The Ukrainian military educational system bears the responsibility for preparing officers who will be able to meet the demands of an effective defense, and it is high time to proceed with changes in the right direction. Priorities are important, and this research focuses on the fundamental shortcomings of Ukrainian military education. These perceived shortcomings call for improvements in three main areas:

- **Shift of Mind**
No reform will be possible without a “Shift of Mind.” This calls for openness to new ideas, new approaches, new concepts and possibilities.
- **Change in Teaching Method**
Ukrainian military universities need to switch from outdated instructor teaching methods to a student-centered method and encourage an active learning process.
- **Change in Curricula**
The current curricula should be comprehensively revised: important new courses are needed and excessive training should be eliminated. Ukrainian officers need to possess a qualitatively new level of knowledge in international law and organizations, ethnicity and culture, human rights and economics, civil-military relations, and information technology. The paper focuses on some core courses that are currently missing in the educational program and suggests a revised curricula for the start of the 21st century (See Appendix B).

B. RECOMMENDATIONS: SUGGESTED FURTHER STUDIES

This study focuses mainly on perceived shortcomings of the Ukrainian military educational system. The study looks at the system in its entirety and is thus limited in terms of its comprehensiveness and treatment of detail. A number of issues and areas warrant further research. Three general areas for continued study are described briefly below.

- **New Recruitment and Retention Strategies**

The moment compulsory military service is abolished in the Ukraine, the continued shrinking of the military will result in fewer and fewer homes from which young people join the services. With expanding opportunities in the private sector, military universities will have to compete with other employers and educational institutions for quality students. Further research is needed on new recruitment and retention strategies. The principal question, which has never been considered before, is: how can we make military education and continued service attractive for a new generation of young people; how can we promote voluntary service now and in the years to come?

- **Structural changes**

With the continued downsizing of the Armed Forces, the number of military universities will inevitably be reduced. Further study is needed on structural changes, how to accommodate new technology in the most effective way, and how to link our military educational institutes together so that students at any one of them can draw on the resources of all.

- **New Evaluation System**

The current system of educational evaluation differs in that students are evaluated more by oral examination than in writing. As a result, students cannot be assigned a percentage value similar to that which is associated with grades elsewhere, such as in the United States. As a rule, only three grades are used for an evaluation: excellent, good, and satisfactory. A grade-point average is not calculated. Moreover, the practice of providing graduates with two colors of diplomas, red for "excellence" and blue for the rest, divides these graduates into two categories: excellent and "the rest." Yet, the difference in grade-point average, when calculated, between the honor (red) diploma graduate and the satisfactory (blue) diploma graduate color is sometimes negligible. Further research is needed to evaluate the purpose of this practice as well as its effect on cohesion, morale, motivation, and perceptions of fairness.

If the proper attention is paid to military education, it can become a most effective instrument for building and sustaining a strong military force for the future. The toughest problem will be probably to ensure that efforts at improvement are designed and applied in a way that responds to the dynamic environment, to continuing changes in the international and domestic arena. Regarding the future, at least one guiding principle can be stated with confidence: we cannot direct the wind, but we must learn how to adjust our sails.

APPENDIX A. THE CURRENT UKRAINIAN MILITARY EDUCATION CURRICULA

(ARTILLERY)

1. History of Ukraine
2. Business-Writing in Ukrainian Language
3. Philosophy
4. Military Psychology and Pedagogy Fundamentals
5. Religion
6. Fundamentals of Economic Theory
7. Law Fundamentals
8. Sociology
9. Foreign Language
10. Economics of Military Organizations
11. General Ukrainian Legislation Fundamentals
12. Higher Mathematics
13. Physics
14. Chemistry
15. Informatics
16. Theoretical Mechanics
17. Material Resistance
18. Theory of Technical System
19. Descriptive Geometry and Computer Graphics
20. Standardization and Technical Requirements
21. Machinery Parts
22. Final Paper on Machinery Parts
23. Fundamentals of Thermodynamics
24. Special Electrical Equipment and Radio-Electronics
25. Fundamentals of Hydraulics and Hydrodynamics (Research Project)
26. Maintenance and Machinery Service

27. Ecology Fundamentals
28. Constructional Materials
29. General Security in Day-to-Day Activities
30. History of Engineering
31. Tactics
32. History of War and War's Art
33. Weapons of Mass Destruction and Force Protection
34. Artillery Reconnaissance
35. Military Topography and Topogeodesy Training
36. Firing and Direction of Artillery Fire
37. Methodology of Combat Training for Artillery Units
38. Artillery Armaments
39. Artillery Armaments Utilization
40. Research Project on Artillery Armaments Utilization
41. Combat Training
42. Driving Drill
43. Physical Training
44. Drill and Ceremonies
45. Small Arms Drill
46. Military Probation Training
47. Combat Manuals

State's Exams on the Following Subjects:

1. Thesis for bachelor degree
2. Artillery Armaments
3. Physical Training
4. Tactical Training
5. Firing and Direction of Artillery Fire

APPENDIX B. UNIFIED CURRICULA SUGGESTED FOR THE 21ST CENTURY

1. History of Ukraine
2. Leadership and Managerial Communication Skill
3. Philosophy
4. Military Psychology and Pedagogy Fundamentals (revised)
5. International Law and Organizations
6. Fundamentals of Economic Theory (revised)
7. Foreign Language (revised)
8. Civil-Military Relations
9. Ecology Fundamentals
10. General Security in Day-to-Day Activities
11. General Ukrainian Legislation Fundamentals
12. Higher Mathematics
13. Physics
14. Chemistry
15. Computer Basics
16. Information Technology
17. Tactics
18. History of War and War's Art
19. Weapons of Mass Destruction and Force Protection
20. Combat Training
21. Driving Drill
22. Physical Training
23. Drill and Ceremonies
24. Small Arms Drill
25. Military Probation Training
26. Combat Manuals
27. Specialization
28. Specialization

29. Specialization
30. Specialization
31. Specialization
32. Specialization
33. Curriculum Option (advanced course from civilian university)
34. Curriculum Option (advanced course from civilian university)
35. Curriculum Option (advanced course from civilian university)
36. Curriculum Option (advanced course from civilian university)
37. Curriculum Option (advanced course from civilian university)
38. Curriculum Option (advanced course from civilian university)
39. Curriculum Option (advanced course from civilian university)
40. Research Colloquium
41. Thesis Writing Workshop

State's Exams on the Following Subjects:

1. Thesis for bachelor degree
2. Specialty
3. Physical Training
4. Foreign Language
5. Information Technology

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